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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/931,193	08/15/2001	Masato Katayama	HIR-139	1385

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LORUSSO & ASSOCIATES  
PO BOX 1915  
PORTSMOUTH, NH 03801

EXAMINER
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PYOR, ALTON NATHANIEL

ART UNIT	PAPER NUMBER
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1616

MAIL DATE	DELIVERY MODE
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01/31/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/931,193	KATAYAMA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Alton N. Pryor	1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 5-11, 13, 15-18, 20-24 and 27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8, 10, 13, 21, 22, 25 and 26 is/are allowed.
- 6) ☒ Claim(s) 5-7, 9, 11, 15-18, 20, 23, 24 and 27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

Applicant's arguments filed 9/4/07 have been fully considered but they are not persuasive. See arguments below.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-7,9,11,15-18,20,23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahmad et al (Physiologia Plantarum, 1987, 69(1), 137-40). New claim 27 is added to this rejection. Ahmad teaches a method of applying a 10<sup>-6</sup> molar solution of 4-chloroindole-3-acetic acid (4-Cl-IAA) to pea cuttings (shoot, leaf) in order to promote root growth. The molar concentration makes it obvious that the solvent is water since no other solvent is specifically named in the reference. See entire reference. Ahmad teaches all that is recited in the claims except for the invention comprising spreading agents, plant growth regulators, water, alcohol, and plant growth regulators and 4-Cl-IAA being applied using a sprayer or an automated sprinkling system. It would have been obvious to use an alcohol or organic compound such as methanol or a combination of methanol and water as the solvent in place of water. One would have been motivated to do this since methanol and water only differ in "H" versus "CH<sub>3</sub>". Compounds differing in this way have similar chemical and physical properties and therefore are expected to yield a similar result when employed in an identical

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application. The term "plant growth regulators" is so broad such that 4-Cl-IAA and water would fit the definition since both can be used to aid in the control of plant growth. The term "spreading agents" is so broad such that water would fit the definition since levels of water in a chemical composition affects the viscosity of the composition that affects how well a composition spreads. With respect to the delivery of the composition as a spray or by using a sprinkling system, it is not demonstrated how dipping versus spraying leads to a different or unexpected result with respect to the growth of the root.

*Response to Applicants' Argument*

Applicants argue that Ahmad does not teach a system using a sprayer, or applying 4-Cl-IAA or any root-inducing compound, to the shoot or leaf of the pea cutting. Ahmad clearly discloses dipping rootless cuttings (basal Leafy cuttings) in a solution containing the root-inducing compound. Since Ahmad does not teach applying the root-inducing compound by spraying the cuttings, it does not teach all elements of the claims. One of ordinary skill in the art would not be aware that the application of the solution comprising a root-inducing agent to the leaf of a rootless cutting would be effective in promoting root growth. Ahmad does not teach or suggest spraying or applying a root-inducing compound to a plant's leave in isolation, i.e., without also applying the compound to the plant's stem. Applicants point out that claim 5 recites, "a rootless cutting having at least one leaf and a stem planted in a soil". Applicant points out that spraying is advantageous when compared to dipping leaf cuttings. The advantages are 1) spraying limits the transfer of diseases to plants whereas dipping

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increases the danger of spreading viruses from plants to plants and 2) savings – dipping is not as cost effective as spraying.

Examiner argues that as stated by the applicants, Ahmad discloses dipping rootless cuttings in a solution containing root inducing compounds such as 4-Cl-IAA. Ahmad identifies the cutting as being “Leafy cuttings”. It obvious that the dipping of the “Leafy cuttings” into a solution containing a root inducing compound involves the application of the root inducing compound onto the surface of the leave – even basal application involves contacting the leaf surface with the root inducing compound. While it is true that Ahmad does not teach application of the root inducing compound by spraying, the Applicants have not shown how dipping versus spraying leads to a different or unexpected result. With respect to one of ordinary skill in the art being unaware that applying the root inducing compound containing solution to the leaf of a rootless cutting would be effective in promoting root growth, the Examiner finds this statement unconvincing since Ahmad makes it clear that the root inducing compound is applied to “Leafy cuttings” to promote root growth. See abstract. Examiner argues while the Applicants have shown true advantages of spraying over dipping, the claims as amended contain new matter. The claims contain new matter: Spraying or applying a root-inducing compound to a plant's leave in isolation, i.e., *without also applying the compound to the plant's stem* is new matter and “a rootless cutting having *at least one* leaf and a stem planted in a soil” is new matter. For this reason the rejection on record is maintained. The declaration is of a different scope from the instant claims. The claims contain new matter: Spraying or applying a root-inducing compound to a plant's

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leave in isolation, i.e., *without also applying the compound to the plant's stem* is new matter and a rootless cutting having *at least one* leaf and a stem planted in a soil" is new matter. The Examiner believes that this new matter is not embraced by the declaration. Please address.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 5-7,9,11,15-18,20,23,24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claims contain new matter: Spraying or applying a root-inducing compound to a plant's leave in isolation, i.e., *without also applying the compound to the plant's stem* is new matter and a rootless cutting having *at least one* leaf and a stem planted in a soil" is new matter.

***Allowable Subject Matter***

Claims 8,10,13,21,22, 25 and 26 are allowable. The prior art does not teach or suggest the instant invention comprising polyoxyethylenealkyl phenyl ether, xylene, nonyl phenyl ether or sodium dodecylbenzenesulfonate.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

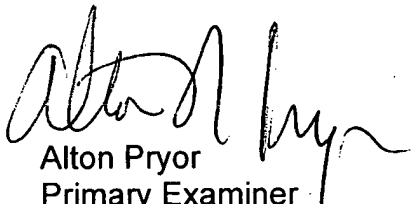
***Telephonic Inquiry***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alton N. Pryor whose telephone number is 571-272-0621. The examiner can normally be reached on 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Alton Pryor  
Primary Examiner  
AU 1616